

## **REMARKS/ARGUMENTS**

### **I. Concerning the Amendments**

The claims are amended to eliminate certain compounds from the description of the glycol ether. Claim 1 is amended to indicate that the partition ratio, value K, for the hydrophilic organic compound is greater than 1.0. Claims 1 and 13 are amended to incorporate the LCST subject matter of Claim 14. Claims 3 and 14 are canceled in view of that they no longer limit the claims from which they depend.

The abstract is amended to obviate the objection thereto. The two paragraphs were combined into one.

### **II. Concerning the Rejection under 35 U.S.C. 103**

A. Claims 1, 3, 4, 6, 7, 10 and 12-14 stand rejected under 35 USC 103(a) as being obvious over Baniel et al. (hereinafter Baniel).

Examiner's rationale is that Baniel discloses a method of separating a hydrophilic compound from an aqueous liquor by intermixing an aqueous liquor with a sufficient quantity of "a glycol ether having the formula" of Applicants' original Claim 1. Examiner admits that Baniel does not disclose that the process may be used to extract a hydrophilic *organic* compound.

Applicants note that Examiner refers to several secondary references in the explanation of this rejection. Accordingly, it is submitted that the actual rejection is a rejection over Baniel *in view of* Kimble, Lehnhardt et al. (hereinafter Lehnhardt) and Allen et al. (hereinafter Allen).

Baniel discloses an extraction process for recovering phosphoric acid from aqueous solutions "using certain organic solvents selected from the group of esters, ketones and glycol ethers ... ." Baniel states that these solvents must have from 2 to 15 carbon atoms. Thus, Baniel teaches a vast universe of possible solvents, of which only one, namely, n-hexyl carbitol, is a solvent within the formulas of Applicants' amended claims.

Examiner cites Kimble for the proposition that it is known in the art to use glycol ether solvents for the extraction of organic acids. Kimble discloses a process for the solvent extraction of a mercaptoalkanoic acid from an aqueous medium using certain solvents. However, the solvents disclosed by Kimble differ from Applicants' solvents in that, for example, Applicants' solvents contain a hydroxyl group. None of Kimble's solvents fall within the formulas of Applicants' claims.

Lehnhardt discloses that organic acids can be recovered from aqueous solutions by an extraction process at a pH of from about 1.0 to about 4.5 using an oxygenated solvent that carries at least one functional group selected from the group consisting of hydroxyl, ester, keto, ether, carbonyl, and amido. Lehnhardt discloses a vast universe of solvents, but does not specifically identify any solvent of Applicants' claims.

Examiner relies on Allen to support the rejection with respect to the lower critical solution temperature (LCST). However, Allen is not prior art. The present application is a 371 of a PCT application filed February 18, 2005, claiming a priority date of February 27, 2004. Allen was not published until 2007.

An amendment is presented herein to incorporate the subject matter of Claim 14, specifically the LCST criteria, into independent Claims 1 and 13. Applicants request reconsideration of the rejection in view of the fact that Allen is not prior art.

In the absence of Allen, the remaining references neither teach nor suggest a process as claimed by Applicants. Baniel gives no generic guidance as to LCST. Examiner argues that Example 3 of Baniel discloses the use of "diethylene glycol n-hexyl ether," but the solvent used in Baniel Example 3 is the *dibutyl* ether of diethylene glycol, which is no longer covered by the formulas of Applicants amended claims.

Baniel lists n-hexyl carbitol (diethylene glycol n-hexyl ether) at col. 2 in a list of 21 exemplary solvents. However, the LCST of this solvent in water is expected to be no higher than 0°C, and is not within 20°C of the mixing temperature shown in Example 3 of Baniel. Applicants respectfully submit that Baniel, either alone or in combination with Kimble and Lehnhardt, neither teaches nor suggests the process of Applicants claims.

Claim 1 is further distinguished from the prior art in that it is amended herein to specify that the partition ratio, value K, for the hydrophilic organic compound is greater than 1.0. This is neither taught nor suggested by Baniel, either alone or in combination with Kimble and Lehnhardt.

B. Claims 2 and 11 stand rejected under 35 USC 103(a) as being obvious over Baniel in view of Shinnar et al. (hereinafter Shinnar).

Claims 5 and 15 stand rejected under 35 USC 103(a) as being obvious over Baniel in view of Ludmer et al. (hereinafter Ludmer).

For the purposes of this response, Applicants elect to have the patentability of Claims 2, 5, 11 and 15 stand or fall with the patentability of the independent claims.

### III. Conclusion

For the foregoing reasons, reconsideration of the claims and passing of the application to allowance are solicited.

Respectfully submitted,

/Paul D Hayhurst/  
Paul D. Hayhurst  
Registration No. 30,180  
Phone: 989-636-373

P. O. Box 1967  
Midland, MI 48641-1967

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